North Slope Borough
Coastal Management Program
Enforceable Policies

Effective Date: May 6, 1988

2.4.3 Standards for Development

(a) When extensive adverse impacts to a subsistence resource are likely and cannot be avoided or mitigated, development shall not deplete subsistence resources below the subsistence needs of local residents of the borough.

Intent: The impacts addressed in this policy may result from a single project or from a series of projects. To implement this policy, the North Slope Borough would need to establish:

1. **Documentation of subsistence needs.**

2. **A preponderance of the evidence indicating that the project will deplete a subsistence resource below the level necessary to meet those needs.**

(b) Offshore drilling and other development within the area of bowhead whale migration during the migration seasons shall not significantly interfere with subsistence activities nor jeopardize the continued availability of whales for subsistence purposes.

Intent: The area of the bowhead whale migration will be determined annually on the basis of best scientific information available, including that provided by the North Slope Borough and National Marine Fisheries Service monitoring programs. With respect to seismic exploration, the policy will be implemented by prohibiting seismic exploration in the vicinity of migrating whales when the exploration is likely to significantly interfere with subsistence activities or to jeopardize the continued availability of whales for subsistence purposes.

(c) Development on barrier islands and in the marine and estuarine waters within 3 miles of the passes of Kasegaluk Lagoon intensively used by beluga whales shall not significantly interfere with subsistence use of beluga whales; shall not cause the whales to be displaced from these passes; and shall not jeopardize the continued use of these passes and

lagoon system by beluga whales. The passes intensively utilized by beluga whales are Kukpowruk Pass, Akunik Pass, Utukok Pass, Icy Cape Pass, and Alokiakatat Pass (see Map 11 of the NSB Resource Atlas).

(d) Development shall not preclude reasonable subsistence user access to a subsistence resource.

Intent: The intent of this policy is to ensure that development will not preclude reasonable subsistence user access to a subsistence resource on which they depend. *A*Reasonable access@ is access using means generally available to subsistence users. Reasonable opportunities for access to customary subsistence resources must not be precluded. *A*Precluding access@ addresses not only means of access, but access to areas where resources are present and can be used by subsistence users.

Policy 2.4.3.(e) should be distinguished from Policy 2.4.5.1(b). Policy 2.4.3.(e) requires that access to a subsistence resource not be precluded. Policy 2.4.5.1(b) applies when access is diminished or restricted. Policy 2.4.5.1(b) provides that access to subsistence resources be restricted only when there are no feasible and prudent alternatives. This is intended to discourage restrictions on subsistence, but it does not absolutely prohibit such restrictions.

(e) Development which is likely to disturb cultural or historic sites listed on the National Register of Historic Places; sites eligible for inclusion in the National Register; or sites identified as important to the study, understanding, or illustration of national, state, or local history or prehistory shall 1) be required to avoid the sites; or 2) be required to consult with appropriate local, state and federal agencies and survey and excavate the site prior to disturbance. (Descriptions of sites identified to date are contained in Appendix C of the North Slope Borough Coastal Management Program Background Report and referenced on Map 2 of the NSB Resource Atlas.)

(f) Development shall not significantly interfere with traditional activities at cultural or historic sites identified in the coastal management program.

(g) Development shall not cause surface disturbance of newly discovered historic or cultural sites prior to archaeological investigation.

(h) Development shall comply with state or federal land, air and water quality standards or regulations.

2.4.4. Required Features for Applicable Development

(a) Vehicles, vessels, and aircraft that are likely to cause significant disturbance must avoid areas where species that are sensitive to noise or movement are concentrated at times when such species are concentrated. Concentrations may be seasonal or year-round and may be due to behavior (e.g., flocks or herds) or limited habitat (e.g., polar bear denning, seal haul-outs). Horizontal and vertical buffers will be required where appropriate. Concern for human safety will be given special consideration when applying this policy.

(b) Offshore structures must be able to withstand geophysical hazards and forces which may occur while at the drill site. Design criteria must be based on actual measurements or conservative estimates of geophysical forces. In addition, structures must have monitoring programs and safety systems capable of securing wells in case unexpected geophysical hazards or forces are encountered.

(c) Development resulting in water or airborne emissions must comply with all state and federal regulations.

(d) Industrial and commercial development must be served by solid waste disposal facilities which meet state and federal regulations.

(e) Development not on a central sewage system is required to impound and process effluent to state and federal quality standards.

(f) Plans for offshore drilling activities are required to include a relief well drilling plan and an emergency countermeasure plan. The relief well drilling plan must identify suitable alternative drilling rigs and their location; identify alternative relief well drilling sites; identify support equipment and supplies including muds; casing, and gravel supplies which could be used in an emergency; and specify the estimated time required to commence drilling and complete a relief well. The emergency

countermeasures plan must identify the steps which will be taken to protect human life and minimize environmental damage in the event of 1) loss of a drilling rig; 2) ice override; or 3) loss or disablement of support craft or other transportation systems.

(g) Offshore drilling operations and offshore petroleum storage and transportation facilities are required to have an oilspill control and clean-up plan. The plan must contain a risk analysis indicating where oilspills are likely to flow under various sets of local meteorological or oceanographic conditions. Impact areas must be identified and strategies fully developed to protect environmentally sensitive areas; the spill control and clean-up equipment which is available to the operator and the response time required to deploy this equipment under the various scenarios must be contained in the risk analysis.

Intent: Policies 2.4.4.(f) and 2.4.4.(g) are not intended to establish new regulations for offshore facilities. They restate and highlight requirements of existing regulations. Industry will not be required to go to considerable additional effort as a result of these policies.

(h) Offshore oil transport systems (e.g., pipelines) must be specially designed to withstand geophysical hazards, specifically sea ice.

(i) All causeways are required to be sided and designed to allow free passage of fish, marine mammals, and molting birds with due consideration for migration patterns; to prevent changes in water circulation patterns that would have significant adverse impacts on fish and wildlife; and to ensure adequate sediment transport.

(j) Residential development associated with industrial and resource extraction development must be removed and the area rehabilitated to standards consistent with the coastal management program when the industrial or extractive use is completed, unless removal is more environmentally harmful than nonremoval.

(k) Impermeable lining and diking is required for fuel storage facilities with a capacity greater than 660 gallons.

2.4.5. Best Effort Policies

All development must comply with each of the policies set out in sections 2.4.5.1 and 2.4.5.2 unless 1) the following criteria have been established; or 2) the policy is not applicable to the development.

(1) There is a significant public need for the proposed use and activity; and

(2) The development has rigorously explored and objectively evaluated all feasible and prudent alternatives to the proposed use or activity and cannot comply with the policy. When alternatives are eliminated from consideration, the reasons for their elimination shall be briefly documented by the developer.

2.4.5.1 Development of the following categories or types will be allowed only if the development has met the criteria under 2.4.5 above, and the developer has taken all feasible and prudent steps to avoid the adverse impacts the policy was intended to prevent.

(a) Development that will likely result in significantly decreased productivity of subsistence resources of their ecosystems.

(b) Development which restricts subsistence user access to a subsistence resource.

(c) Development activities from June 15 to July 31 that will likely displace beluga whales from Kasegaluk Lagoon. These development activities may include, but are not limited to, extensive barge or boat traffic; low altitude or frequent plane and helicopter traffic; and other activities resulting in excessive noise or other forms of disturbance.

(d) Development on or near a shoreline that has the potential of adversely impacting water quality (e.g., landfills, or hazardous material storage areas, dumps, etc.). (Near, as used in the phrase Anear the shoreline,≅ is defined as that area within a 1,500 foot setback from the mean high water mark along the coast, lakeshore, or river).

(e) Public highway development, except for village roads and streets and highways indicated in the state and/or local capital improvements program.

(f) Transportation development, including pipelines, which significantly obstructs wildlife migration.

(g) Development to accommodate large scale movement of crude oil or natural gas via marine tankers.

Intent: The intent of this policy is to limit development to accommodate large scale movement of crude oil or natural gas via marine tankers to instances where no feasible and prudent alternatives exist, recognizing that development of marine tanker facilities is a use of state concern.

(h) Duplicative transportation corridors from resource extraction sites.

(i) Mining of beaches, barrier islands or offshore shoals. In those circumstances where no feasible and prudent alternatives exist, substantial alteration of shoreline dynamics is prohibited.

(j) Placement of structures in floodplains subject to a 50 year recurrence level and in geologic hazard areas as identified on the following coastal management maps in the NSB Resource Atlas:
Map 6 - Areas of moderate and severe ridging and historic ice override.
Map 7 and 22 - Areas of moderate and severe ice ridging.

2.4.5.2 The following are required of applicable development except where the development has met the criteria of 2.4.5 above, and the developer has taken all feasible and prudent steps to maximize conformance with the policy.

(a) Mining (including sand and gravel extraction) in the coastal area shall be evaluated with respect to type of extraction operation, location, possible mitigation measures, and season so as to lessen, to the maximum extent practicable, environmental degradation of coastal lands and waters (e.g., siltation of anadromous rivers and streams).

(b) **Development is required to be located, designed, and maintained in a manner that prevents significant adverse impacts on fish and wildlife and their habitat, including water circulation and drainage patterns and coastal processes.**

(c) **Resource extraction support facilities, including administration offices, operations, residences, and other uses not absolutely required in the field, must be located in a designated service base which is sited, designed, constructed, and maintained to be as compact as possible and to share facilities to the maximum extent possible.**

(d) **Gravel extraction activities within floodplains shall maintain buffers between active channels and the work area, avoid instream work, permanent channel shifts and ponding of water, clearing of riparian vegetation, and disturbance to natural banks.**

(e) **New subdivisions or other residential development must provide state-approved water and sewer service to prevent damage to fish and wildlife and their habitat.**

(f) **Transportation facilities and utilities must be consolidated to the maximum extent possible.**

(g) **Development within the Alaska Coastal Management Program-defined coastal habitats must be conducted in accordance with ACMP Standard 6 AAC 80.130(b), (c), and (d), and applicable policies of the North Slope Borough Coastal Management Program. These habitats include the following:**

1. **Offshore areas;**
2. **estuaries;**
3. **wetlands and tideflats;**
4. **rocky islands and seacliffs;**
5. **barrier islands and lagoons;**
6. **exposed high-energy coasts;**
7. **rivers, streams and lakes; and**
8. **important upland habitat.**

(h) Development is required to be located, designed, and maintained in a manner that does not interfere with the use of a site that is important for significant cultural uses or essential for transportation to subsistence use areas.

2.4.6 Minimization of Negative Impacts.

Applicable development is required to minimize its impact as follows:

(a) Development associated with purely recreational uses of land and wildlife habitat (i.e., commercial hunting and fishing camps and recreational second-home subdivisions) shall minimize adverse impacts on subsistence activities.

(b) Siting, design, construction, and maintenance of transportation and utility facilities (including the ice roads) are required to minimize alteration of shorelines, water courses, wetlands, tidal marshes, and significant disturbance to important habitat and to avoid critical fish migration periods.

(c) Development is required to maintain the natural permafrost insulation quality of existing soils and vegetation.

(d) Airports and helicopter pads are required to be sited, designed, constructed, and operated in a manner that minimizes their impact upon wildlife.

(e) A means of providing for unimpeded wildlife crossing shall be included in the design and construction of structures such as roads and pipelines that are located in areas used by wildlife. Pipeline design shall be based on the best available information and include adequate pipeline elevation, ramping, or burial to minimize disruptions of migratory patterns and other major movements of wildlife. Aboveground pipelines shall be elevated a minimum of 5 feet from the ground to the bottom of the pipe, except at those points where the pipeline intersects a road, pad, or caribou ramp, or is constructed within 100 feet of an existing pipeline that is elevated less

than 5 feet. Temporary pipelines (not to exceed 6 months) are exempt from this policy.

Intent: In areas used by wildlife, this policy establishes a five-foot minimum pipeline elevation where elevation is the preferred means of providing for unimpeded wildlife crossings. Best available information will be evaluated during project review to determine if pipeline burial, ramping, elevation, or a combination thereof, will be employed.

(f) Development in floodplains, shoreline areas, and offshore areas is required to be sited, designed, and constructed to minimize loss of life or property due to riverine flooding, icings, streambank erosion, oceanic storms, sea waves, ice gouging and override, and shore erosion.

(g) Seismic exploration must be conducted in a manner that minimizes its impact on fish and wildlife.

North Slope Borough
Coastal Management Program
Coastal Zone Boundaries

Introduction

The determination and definition of the inland and seaward limits of the North Slope Borough coastal zone boundary was a major part of the development of the North Slope Borough Coastal Management Program. The coastal zone is the area to which the enforceable policies of the North Slope Borough Coastal Management Program directly apply. This area is referred to in the Alaska Coastal Management Program (ACMP) Guideline 6 AAC 85.040 as the Acoastal area.≅ The coastal area includes all lands and waters within its boundaries not subject to the exclusive jurisdiction of the federal government (i.e., State, Borough and private lands and waters). All uses and activities on excluded federal lands which directly affect the coastal area must be consistent to the maximum extent practical with the district program. (Section 307(c), Coastal Zone Management Act of 1972, as amended).

The Alaska Department of Fish and Game, in cooperation with the Office of Coastal management, commenced work on defining the coastal zone of Alaska in 1975. In 1978, the Department completed the study and released its findings in a series of maps entitled the Biophysical Boundaries of Alaska=s Coastal Zone. The coastal area was defined in terms of three zones: district interaction, direct influence and indirect influence. These zones were established as a result of interviews with biologists and others familiar with the region and a comprehensive review of the literature on the biological and physical processes along Alaska=s coastal region. The criteria used to delineate these zones were included on the maps.

The Coastal Policy Council adopted the three-mile territorial limit of State waters as the seaward limit of the coastal zone and the inland extent of the zone of direct influence as the landward limit of the coastal zone. This zone is depicted on the maps entitled Interim Coastal Boundaries of Alaska, published by the Office of Coastal Management.

ACMP Guideline 6 AAC 80.040 allows coastal districts to adopt the initial (interim) coastal boundary or deviate from it. No justification is required of the coastal district when it adopts the interim coastal boundary. However, coastal districts must provide justification as outlined in 6 AAC 80.040(c) where they deviate from the initial boundaries. The final boundaries may deviate from the initial boundaries if the district demonstrates that the adjusted boundaries:

1. **extend inland and seaward to the extent necessary to manage uses and activities that have or are likely to have a direct and significant impact on marine coastal waters; and**

2. **include all transitional and intertidal areas, salt marshes, saltwater wetlands, islands, and beaches.**

The term Amarine coastal water≅ as used in (1) above is defined as Awater adjacent to shorelines which contains a measurable quantity of seawater, including sounds, lagoons, bayous, ponds and estuaries, and the living resources that depend on these bodies of water≅ (6 AAC 85.900(2)). In other words, the coastal area boundary may extend inland to the extent necessary to manage uses and activities that have or are likely to have a direct and significant impact on the living resources that depend on saline coastal waters. The U.S. Department of Commerce (1979) in the Final Environmental Impact Statement for the ACMP concluded that, AWith all of these [biophysical and geophysical] relationships established, the [biological boundary] method simply declares that an impact on these relationships could result in an >impact on the coastal waters,= but [the] ACMP went further, and declared that an impact on animals using the coastal waters, including anadromous fish, is part of the definition of impact on coastal waters.≅

If the aforementioned criteria are met, then the Afinal boundaries of the coastal area subject to the district program may be based on political jurisdiction, cultural features, planning areas, watersheds, topographic features, uniform setbacks, or the dependency of uses and activities on water access≅ (6 AAC 85.040(d)). The final boundaries of the district Amust be sufficiently compatible with those of adjoining areas to allow consistent administration of the Alaska Coastal Management Program≅ (6 AAC 85.040(e)).

The justification of boundary adjustments requires an understanding of:

1. **the biological resources and physical processes which are dependent on marine coastal waters;**

2. **existing and anticipated future uses and activities in the coastal region; and**

3. **the extent to which these uses and activities have or are likely to have direct and significant impact on marine coastal waters or the biological resources that depend on them.**

The following sections of this chapter provide a rationale for North Slope Borough coastal zone boundary adjustments based on these three components.

The coastal boundary is divided into two sectors, the mid-Beaufort coastal sector and the Point Hope/Point Lay coastal sector (Map 1). The mid-Beaufort coastal sector lies between the Arctic National Wildlife Refuge (ANWR) and the National Petroleum Reserve - Alaska (NPRA). The Point Hope/Point Lay coastal sector lies between the National Petroleum Reserve - Alaska and the NANA Coastal Resource Service Area. The boundary extensions in each sector will be justified separately.

Inland Coastal Boundary

The North Slope Borough inland coastal boundary extends inland from the interim boundary as follows: (1) in the mid-Beaufort sector the boundary extends inland along selected streams to include all anadromous fish spawning and overwintering habitat and (2) in the Point Hope/Point Lay sector the boundary extends inland to include anadromous fish spawning and overwintering habitat on the Kukpuk River. The North Slope Borough believes that the boundary expansions are necessary to manage uses and activities that have or are likely to have direct and significant impacts on marine coastal waters, particularly anadromous fish and sea birds. Anadromous fish are important components of the coastal zone and are very important to the North Slope Borough residents for subsistence use (see Chapters 3.0 and 4.0). Justification for these boundary extensions is provided below.

The inland boundary extends inland from the interim boundary along the Kukpuk, Chandler, Anaktuvuk, Kanayut, Nanushuk (including May and Cobblestone Creeks), Itkillik, Sagavanirktok (including Accomplishment and Section Creeks), Ridbon, Lupine, Echooka, Ivishak, Saviukviayak (including Flood Creek), Shaviovik, Kavik, Canning and Marsh Fork drainages. Along each stream, a one-mile corridor from mean high water is included within the coastal zone. Justification for the inland boundary extensions along these rivers and streams is provided below in a discussion of the biological resources, uses and activities, and effects of uses and activities.

Inland Coastal Boundary Justification

Development activities in upstream portions of the anadromous fish streams can have direct and significant impact on anadromous fish resources a considerable distance from the area of activity. Principal concerns include sedimentation, turbidity, degradation of water quality, alteration of water flow, and introduction of toxic substances including petroleum products and heavy metals. Actions which can cause adverse disturbances to aquatic systems supporting anadromous fish include development activities such as land clearing, construction of roadways and utility corridors, placer mining, floodplain sand and gravel removal, coal mining, oil and gas development, and seismic activities near streams. It is important to assure that anadromous fish streams and their tributaries are not subjected to adverse impacts from incompatible activities.